

STN

FILE 'CONFSCI, COMPUAB, COMPUSCIENCE, ELCOM, INFODATA' ENTERED AT  
12:46:56 ON 14 NOV 2003

L1 37634 S SENSOR OR SENSORS OR DETECTOR#  
L2 11572 S (MEASUR? OR COUNT### OR TALLY? OR ADD OR ADDING OR ADDED OR A  
L3 2706 S (CALCULAT? OR COMPUTES OR COMPUTATION? OR VALUAT?) (3A) (COST#.  
L4 1 S L1 AND L2 AND L3  
L5 525 S (CALCULAT? OR COMPUTES OR VALUAT?) (3A) (COST# OR FEES OR EXPEN  
L6 2 S L2(S)L5

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L4 ANSWER 1 OF 1 COMPUAB COPYRIGHT 2003 CSA on STN  
AN 85:6687 COMPUAB  
TI Distributed computing for vision: Architecture and a benchmark test.  
AU Selfridge, P.G.; Mahakian, S.  
CS Dep. Robotics Syst. Res., AT&T Bell Lab., Holmdel, NJ 07733, USA  
SO IEEE TRANS. PATTERN ANAL. MACH. INTELLIG., (1985) vol. PAMI-7, no. 5, pp.  
623-626.  
DT Journal  
FS C  
LA English  
SL English  
AB Computer vision algorithms are notorious for their **computational expense**. Distributed vision, the use of more than one processor, can decrease **computation costs** and speed up algorithms. There are various ways to do this, ranging from parallelism at the **sensor** level to true multiprocessor systems. This correspondence first describes a system of microprocessors on a high-speed bus. A canonical vision task, locating a **number** of objects and **measuring** certain two-dimensional features of those objects, serves as a benchmark test for the system. An algorithm for this task is presented. Performance measures are compared from implementations on the distributed system, a Vax 11/750, and a Vax 11/780.  
CC CA2. PATTERN RECOGNITION; CS2. PATTERN RECOGNITION; CA16 OPTICS  
UT vision; architecture; distributed systems; microprocessors; DEC VAX 11/750; DEC VAX 11/780; benchmarks; algorithms

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L6 ANSWER 1 OF 2 COMPUAB COPYRIGHT 2003 CSA on STN  
AN 85:448 COMPUAB  
TI Experience with a stochastic replacement model.  
AU Christer, A.H.; Keddie, E.  
CS Dep. Oper. Res., Univ. Strathclyde, UK  
SO J. OPER. RES. SOC., (1985) vol. 36, no. 1, pp. 25-34.  
DT Journal  
FS C  
LA English  
SL English  
AB This paper reports on a study initiated to check the validity of an existing six-monthly block replacement policy for a set of filling valves in a canning line. After dealing with inadequacies in the data and changing to a production-based time measure, the paper shows how a renewal function **measure** of the expected **number** of valve replacements was obtained and led to the conclusion that the current block replacement policy could not be justified. The possibility of an age-based replacement policy being of value remained. A finite optimal replacement age was found which depended upon the objective being to minimize a measure of downtime due to replacements, or operating **costs** attributable to replacements. Calculations were further complicated by part of the plant having a finite remaining life before being upgraded.  
CC CA3. MANAGEMENT  
UT costs; operations research; production control; modeling; food processing industry; production costs

L6 ANSWER 2 OF 2 COMPUSCIENCE COPYRIGHT 2003 FIZ KARLSRUHE on STN  
AN 1996(2):MA28016 COMPUSCIENCE  
TI Varn codes and generalized Fibonacci trees.  
AU Abrahams, Julia  
SO Fibonacci Q. (1995) v. 33(1) p. 21-25.  
1995.  
DT Journal  
TC Theoretical  
CY Germany, Federal Republic of  
LA English  
IP FIZKA  
DN 830.94009  
AB The paper is concerned with the problem of finding the minimal cost code that encodes a number of equiprobable source symbols with code symbols of unequal cost. To that end recursively defined trees are studied. The definition of the trees is such that the leaf nodes correspond to codewords in an optimal code. In order to count the number of leads and to calculate the total cost some generating functions associated with the trees are studied. For some specific examples the average cost is calculated (using generating functions) and compared to the entropy lower bound. The results indicate that the average cost of the in this way defined codes does not differ too much from the lower bound. (H. J. Tiersma (Diemen))  
CC \*F.4.3 Formal languages  
ST Varn codes; generalized Fibonacci trees; minimal cost code.

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